

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MASSACHUSETTS**

SKYLINE SOFTWARE SYSTEMS, INC.,  
Plaintiff,  
  
v.  
  
KEYHOLE, INC. and GOOGLE INC.,  
Defendants.

CIVIL ACTION NO. 04-1129-DPW

## DECLARATION OF AHARON (RONNIE) YARON

I, Aharon (Ronnie) Yaron, on oath depose and state that:

1. I am the President of Plaintiff Skyline Software Systems, Inc. (“Skyline”) and one of the inventors on the patent-in-suit. I submit this Supplemental Declaration in support of Skyline’s Reply Memorandum in further support of its request for preliminary injunctive relief.

2. I have reviewed the redacted version of Defendants Google Inc. (“Google” and Keyhole, Inc.’s (“Keyhole,” collectively with Google, “Defendants”) opposition to Skyline’s Motion for a Preliminary Injunction, as well as redacted versions of the supporting declarations of Michael Jones and Stephen Feiner.

3. In their Opposition, Defendants state the Skyline's preliminary injunction motion should be denied because Skyline waited fourteen months to request this relief. Skyline did not simply wait fourteen months to file this Motion. The circumstances have changed significantly over the past fourteen months. During this period, Skyline has experienced the growing adverse effects of Google's entry into the 3D terrain visualization market. Fourteen months ago, when Skyline brought this patent

infringement action against Keyhole, Keyhole was, as even Defendants describe at page 2 of their brief, a “small software infrastructure company providing digital mapping software products[.]” Then, Keyhole was bought by the multi-billion dollar search engine company, Google. Google later announced that it was eliminating altogether the cost for one of the infringing Google Earth products. Since then, both Google and Keyhole (with Google’s financial resources) have aggressively moved into the 3D terrain visualization market at all levels (from free consumer products to high-end enterprise solutions targeting a range of commercial and governmental customers). These efforts have increased over time and Skyline has increasingly felt the impacts of these efforts incrementally, but steadily and increasingly over time.

4. By late-2005, Skyline was routinely being confronted by its potential and existing customers about the Google Earth products and asked why they should pay Skyline for its *Terra* suite of 3D visualization products when they could download Google Earth for free (or for a lower price than offered by Skyline). In addition to these questions, by late-2005, the media began falsely to credit Google as the innovator in this industry -- an industry pioneered by Skyline and in which Skyline holds key patents, including the ‘189 Patent at issue in this litigation. For example, an article that recently appeared in *Business Week* asserts that “Google’s innovations set its mapping apart.” Haight Decl., Exh. C (“It Feels Like You’re Flying,” *BusinessWeek*, Jan. 16, 2006). It was Skyline, not Google or Keyhole, who is the innovator in this field. Yet, the world of 3D terrain mapping is increasingly associated with *Defendants’ infringing products*, not Skyline’s patented invention, because of Google’s massive, multi-billion dollar presence, marketing and the placement of Google Earth on Google’s pervasive search engine site.

5. Skyline continues to experience obstacles in the market, both with existing customer and with potential customers, as its Preliminary Injunction Motion is pending. It is difficult for Skyline to justify the sale of its software to potential or existing customers when it appears, on the surface, that Google Earth provides certain of the same functionality for a lower or no cost and is taking increasingly aggressive steps in an attempt to dominate the field. By way of one example, on January 17, 2006, I heard from an existing customer, Associate Research Professor Matt Nolan, at the University of Alaska, describing the pressures being put on him to use Google Earth for his research and development, rather than continue to use Skyline's products. He informed me of the pressures that he faces to abandon use of Skyline's products in favor of Google Earth, in light of the perceived future dominance of Google Earth. Professor Nolan also stated that: "Basically at this point everyone and their brother are developing applications for Google Earth." Professor Nolan informed me that it was increasingly difficult for him to justify the use of what he perceives to be a superior product, Skyline, to his funding sources. This is but one example of the situations that confront Skyline on an almost daily basis as the result of Defendants' increasingly widespread infringement.

6. In their opposition, Defendants also assert that any harm to Skyline could be the result of NASA Worldwind, which offers free 3D satellite imagery of Earth, not Defendants. I strongly disagree with this assertion. NASA Worldwind is academic research software that serves no business purpose at all and is not a competitive solution for potential and existing Skyline customers. NASA Worldwind's presence and popularity is *de minimis* in contrast to the popularity of the accused Google Earth products. In a search that I conducted on Defendant Google's search engine of "NASA

Worldwind” revealed 58,600 search results, whereas a search of the terms “Google Earth” revealed 17,500,000 search results. Attached hereto as Exhibit A are true and accurate copies of the search result listings. Moreover, NASA Worldwind offers a basic 3D viewer with minimal, if any, capabilities for business purposes. In addition, NASA does not offer any support for its Worldwind product. This lack of any technical or other support would deter any potential user of the software from developing business applications, where such support is essential. No potential or existing customer of Skyline’s has ever cited NASA Worldwind as a concern or reason for either not adopting or for ceasing use of any product offered by Skyline. In sharp contrast, in the past few months, the accused Google Earth products are routinely cited by customers as an obstacle to doing business with Skyline.

7. I also disagree with Defendants’ characterization that there are twenty (20) competitors in the 3D terrain visualization market. There are only a handful of players, including Skyline, Keyhole and Google, ESRI and Leica. I note that Defendants do not identify who they believe are competitors in this market, making it impossible for me to refute with specificity Defendants’ characterization of the market. In any event, in my experience as President of Skyline, I am aware of only a handful of such competitors.

8. I have also reviewed Defendants’ arguments about the purported invalidity of the ‘189 Patent. Defendants rely primarily on the article “TerraVision: A Terrain Visualization System” (“TerraVision Article”), which is attached as Exhibit B to the Feiner Declaration. But this article states that all elevation data in that system will fit in local memory and would only be retrieved when the user chooses an area of interest. Consequently, this article sets forth a fundamentally different system than that described

and claimed in the '189 Patent, where the 3D terrain data is downloaded or streamed from a remote server as the viewer moves across or zooms into an area. In addition, the TerraVision Article discusses the operation of a system employing an extremely fast local network (requiring many gigabites per second) and powerful SGI graphics work stations. By contrast, the system in the '189 Patent offers a solution for downloading 3D terrain data over low bandwidth Internet connections and standard personal computers from a remote server. Haight Decl., Exh. A ('189 Patent, col.7, lns.62-67 and col. 8, lns. 1-14).

9. Defendants also rely on U.S. Patent No. 5,760,783 ("Migdal Patent") to argue the invalidity of the '189 Patent. During prosecution of Skyline's patent, the Patent Examiner carefully examined the Migdal Patent (and its references) during prosecution of the '189 Patent to determine if it presented a bar to the issuance of Skyline's patent. The Patent Office directly addressed this issue and determined that it did not.

10. Defendants also rely on an article by Michael A. Cosman ("Cosman Article"), a reference cited in the Migdal Patent. In examining the Migdal Patent, the Patent Office was fully aware of the Cosman Article, as it is cited in the Migdal Patent. The Cosman Article deals only with image data, not with the mechanism necessary to stream 3D terrain data from a remote server (as disclosed in the '189 Patent). The Cosman Article is based on the draping of image data over elevation data of terrain. There is no disclosure or discussion in that article that the 3D terrain elevation data is downloaded from a remote server. In contrast, remote streaming of such data is the problem addressed by Skyline's invention and patent.

Signed under the penalties of perjury this 10th day of March, 2006.

/s/Aharon (Ronnie) Yaron

Aharon (Ronnie) Yaron

**Certificate of Service**

I hereby certify that this document filed through the ECF system will be sent electronically to the registered participants as identified on the Notice of Electronic Filing (NEF) and paper copies will be sent to those indicated as non-registered participants on March 10, 2006.

/s/ H. Joseph Hameline

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